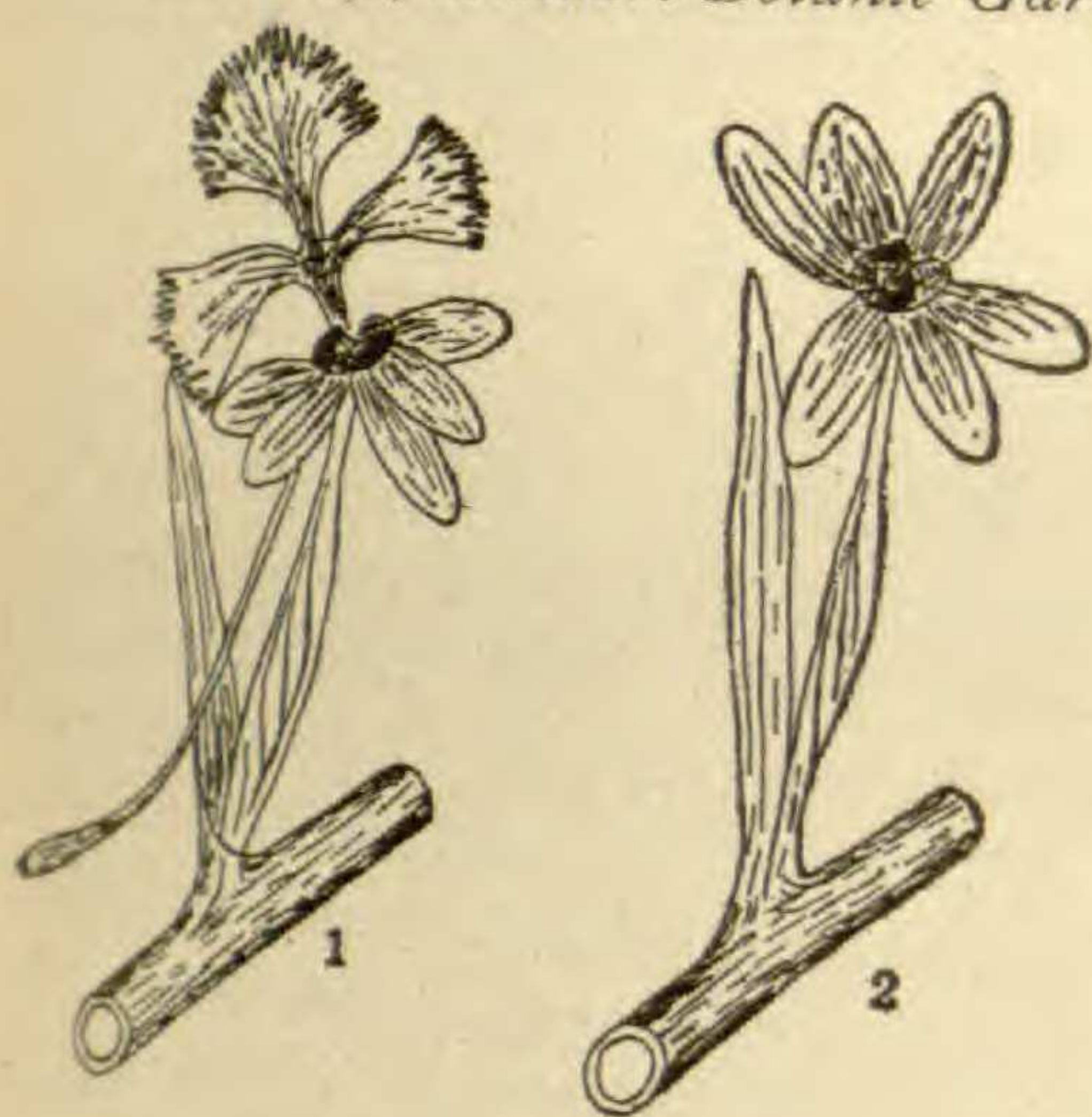


7. Goepfert found⁶ the mosses, *Dicranum purpureum*, *Bryum caespitium*, *Bryum argenteum*, *Funaria hygrometrica*, and further, *Poa annua*, *Agrostis vulgaris*, *Hypochaeris radicata*, and *Polygonum aviculare* in a place where they were in contact with steam or vapor of 63° C.; while he found, three inches under the surface, a temperature of 56° C.

On the well-known phenomenon of certain algae being found in hot springs, I could bring a good deal together here, but it is known that Cohn many years ago took this question up. For the other facts, I am able to give no explanation, when I consider the much written on temperature-maxima for growth and other life phenomena.—J. CHRISTIAN BAY, *Missouri Botanic Garden*.



HABENARIA FIMBRIATA.

1, normal form; 2, variety.

its prime already. In color, an unusual number of spikes were nearly white and a large number were gathered in a hasty run through the woods. In addition two spikes of a very peculiar variety were found, but were not noticed at the time, or others would have been looked for. One of the two had the light purple flowers of the type while the other was white. In size and foliage there was nothing unusual about them, except that the spikes were much more slender than the type and linear rather than oblong. The flowers, however, were strangely modified, as is shown in the figures accompanying this paragraph. Fig. 1 is the ordinary form, fig. 2, the variety. In the variety the sepals and petals are all entire and alike in form and size, except as in two or three flowers on one of the spikes there is a slight suggestion of a fringed lip. The long and prominent spur, in the type moreover, is here entirely wanting, the ovary is considerably longer and more

Habenaria fimbriata, var.
—During a collecting tour with Mr. H. E. Sargent, in the summer of 1892, a large quantity of the type form of this orchid was found August 2nd, in full bloom, in moist woods a few miles east of Lynn, N. H. This species is much less common than the nearly related species, *H. psychodes*. The latter at the above date had barely begun to bloom, while *H. fimbriata* had in some cases passed

⁶Wiegmann's Archiv für Naturgeschichte, 1 (1837). 208-210.

slender, and the bracts are most of them linear lanceolate instead of lanceolate. It would be of interest to the writer to learn whether the above variety has often been met with, and whether similar variations occur in other species or genera of this order.

Since the above was written the February number of the *Torrey Bulletin* has come to hand. Reference is there made (p. 37,) to *Habenaria blephariglottis*, var. *holopetala* Torr., as having entire petals at times, and (p. 38), to a variety of *H. ciliaris*, collected during the past season in the vicinity of New York, in which the lip was either imperfectly fringed or entire, while the spur was either very short or obsolete. The figures given above, therefore, only illustrate the extremes of variation found within the limits of the genus.—HENRY G. JESUP, Hanover, N. H.

EDITORIAL.

THE need of a comprehensive index to the writings of American botanists becomes more urgent every year. What Farlow's index did for writings upon fungi, should be done for every other department of the science, and provision ought also to be made for keeping the index up to date. The index to current literature in the *Bulletin of the Torrey Club*, is valuable, and a specially interesting feature of the journal, but is necessarily restricted and imperfect. It was a most excellent idea to provide an index and abstracts of the publications sent out by the experiment stations in the form of a serial, the *Experiment Station Record*, but the multiplicity of subjects included makes it rather unhandy for the use of the specialist.

There are other bibliographical aids to historical research that are of some service, but all told, the facilities for ascertaining what has been written in America upon a particular subject are meager and annoyingly imperfect.

The need of such an index was formerly not strongly felt except by a few workers, but recently it has become the fashion (may it never depart) to include in every considerable research a more or less complete historical review, and in all matters of moment to give the connection of the observations with previously recorded facts. With the present lack of any suitable index this is often a formidable task, and is usually attended with great uncertainty, particularly in regard to American records.

Could such an admirable work as Just's *Jahresbericht* be provided for the current writings of American botanists, it would not only be